

Listing of Claims:

1 1. (previously presented) A screen assembly for a shale shaker, the screen
2 assembly made by a method, the method comprising

3 applying glue in a glue pattern to at least one layer of screening
4 material useful for screening fluid introduced to a shale shaker, said applying
5 done by powered moving mechanical glue application means,

6 wherein the method includes moving at least one glue dispensing
7 manifold with a plurality of spaced-apart glue dispensing nozzles above the at
8 least one layer of screening material to apply the glue pattern,

9 combining the at least one layer of screening material to a second
10 layer of screening material forming a screen combination,

11 moving the screen combination apart from the powered moving
12 mechanical glue application means, and

13 cutting part of the screen combination from the screen
14 combination.

1 2. (previously presented) The screen assembly of claim 1 wherein the glue is
2 heated moisture-curing hot melt glue.

1 3. (previously presented) The screen assembly of claim 1 wherein the
2 automated method further comprises

3 moving with powered mechanical screen movement apparatus the
4 at least one layer of screening material beneath the powered moving mechanical
5 glue application means.

1 4. (previously presented) The screen assembly of claim 1 wherein the at least
2 one layer of screening material is three layers of screening material.

1 5. (previously presented) The screen assembly of claim 1 wherein the part of
2 the screen combination is mounted on screen assembly support means.

1 6. (previously presented) The screen assembly of claim 5 wherein the screen
2 assembly support means is from the group consisting of frame, strip support,
3 perforated sheet metal, and perforated plate.

1 7. (previously presented) The screen assembly of claim 1, the method further

2 comprising

3 connecting hookstrip apparatus on each of two spaced-apart sides
4 of the screen assembly.

1 8. (previously presented) The screen assembly of claim 1 wherein the at least
2 one layer of screening material is at least two layers of screening material and the
3 method further comprising

4 sewing together with sewing material the at least two layers of
5 screening material.

1 9. (previously presented) The screen assembly of claim 8, the method further
2 comprising

3 placing said sewn-together at least two layers of screening material
4 in a heating apparatus,

5 placing a coarse mesh layer on the at least two layers of screening
6 material on the heating apparatus,

7 placing on the coarse mesh layer a support with heat activated
8 material thereon for adhering the support to the coarse mesh layer, and

9 heating the coarse mesh layer, the at least two layers of fine
10 screening material, and the support to adhere the support to the coarse mesh
11 layer and the at least two layers of screening material to the coarse mesh layer.

1 10. (previously presented) The screen assembly of claim 1, the method further
2 comprising

3 moving said part onto a support, and

4 cutting said part on said support.

1 11. (previously presented) The screen assembly of claim 10 wherein said glue
2 is heated glue and said support has air flow holes therethrough to facilitate cooling of
3 said glue.

1 12. (previously presented) A plurality of screen assemblies as in claim 1, said
2 screen assemblies stacked in a stack with a piece of material between each two
3 adjacent screen assemblies to inhibit glue together of adjacent screen assemblies.

1 13. (previously presented) A screen assembly made by a method for making

2 a screen assembly for a vibratory separator, the method comprising
3 moving with screen movement apparatus at least one layer of
4 screening material below a glue application apparatus, the glue application
5 apparatus including a main body a plurality of movable glue nozzles movably
6 connected to the body,
7 moving the movable glue nozzles with nozzle movement apparatus
8 above the at least one layer of screening material,
9 applying with the movable glue nozzles an amount of glue flowing
10 from the glue nozzles in a pattern to at least a portion of the at least one layer
11 of screening material, wherein the glue is heated moisture-curing hot melt glue,
12 combining the at least one layer of first screening material with at
13 least one layer of second screening material so that the at least one layer of
14 first screening material is glued to the at least one layer of second screening
15 material thereby forming a screen combination,
16 moving part of the screen combination onto support apparatus,
17 cutting said part of the screen combination from the screen
18 combination, and
19 allowing the glue to cure.

1 14. (previously presented) The screen assembly of claim 13, the method
2 further comprising

3 moving said part onto a support, and
4 cutting said part on said support.

1 15. (previously presented) The screen assembly of claim 13 wherein the
2 support has air flow holes therethrough, the method further comprising

3 flowing air through the air holes to facilitate curing of the glue.

1 16. (previously presented) The screen assembly of claim 13 further comprising
2 continuously moving the at least one layer of screening material
3 with the screen movement apparatus so that a continuous screen combination
4 is produced from which multiple parts can be cut and the method further
5 comprising

6 continuously cutting multiple parts from said screen combination.

1 17. (previously presented) The screen assembly of claim 13 wherein the screen
2 combination is moved onto the support apparatus by dual opposed driven rollers
3 between which the screen combination passes.

1 18. (previously presented) The screen assembly of claim 13 wherein the dual
2 opposed driven rollers are each rotated at a substantially identical rate.

1 19. (previously presented) The screen assembly of claim 13 wherein the screen
2 combination is inclined downwardly to facilitate movement of the screen combination
3 in a direction away from the glue application apparatus.

1 20. (previously presented) The screen assembly of claim 13 wherein the
2 method further comprises positioning a piece of material on said part to inhibit said
3 glue from adhering to an item placed on said part.

1 21. (previously presented) A method for making a screen assembly for a
2 vibratory separator, the vibratory separator including vibration apparatus for vibrating
3 the screen assembly to impart vibratory forces to the screen assembly for vibrating the
4 screen assembly during use of the screen assembly on the vibratory separator, the
5 method comprising

6 applying glue in a glue pattern to at least one layer of screening
7 material useful for screening fluid introduced to a vibratory separator, said
8 applying done by powered moving mechanical glue application means, and

9 applying the glue in an amount sufficient so that said screen
10 assembly while in use on the vibratory separator is able to withstand vibratory
11 forces imparted thereto by the vibration apparatus of the vibratory separator,

12 wherein the glue is moisture-curing hot melt glue, the method
13 further comprising heating the glue,

14 moving with powered mechanical screen movement apparatus the
15 at least one layer of screening material beneath the powered moving mechanical
16 glue application means,

17 combining the at least one layer of screening material to a second
18 layer of screening material forming a screen combination,

19 moving the screen combination apart from the powered moving
20 mechanical glue application means, and

21 cutting part of the screen combination from the screen
22 combination.

1 22. (previously presented) The method of claim 21 including mounting said part
2 of the screen combination on screen assembly support means.

1 23. (previously presented) The method of claim 22 wherein the screen
2 assembly support means is from the group consisting of frame, strip support,
3 perforated sheet metal, and perforated plate.

1 24. (previously presented) The method of claim 21 further comprising
2 attaching hookstrip apparatus on each of two spaced-apart sides
3 of said part of the screen combination.

1 25. (previously presented) The method of claim 21 wherein the glue pattern
2 comprises a plurality of intersecting lines of glue extending across the at least one
3 layer of screening material.

1 26. (previously presented) The method of claim 21 wherein the vibratory
2 separator is a shale shaker and the at least one layer of screening material is suitable
3 for screening drilling fluid with drilling solids entrained therein.

1 27. (previously presented) The method of claim 21 wherein the at least one
2 layer of screening material is a plurality of layers, the method further comprising
3 sewing together the plurality of layers.

1 28. (previously presented) A machine for making a screen combination for a
2 screen assembly for a vibratory separator, the machine comprising
3 powered moving mechanical glue application means for applying
4 glue to at least one layer of screening material,
5 said powered moving mechanical glue application means including
6 at least one glue dispensing manifold with a plurality of spaced-apart glue
7 dispensing nozzles positionable above the at least one layer of screening
8 material to apply a glue pattern on the at least one layer of screening material,
9 means for combining the at least one layer of screening material

10 with a second layer of screening material to form a screen combination,
11 means for moving the screen combination apart from the powered
12 moving mechanical glue application means, and
13 means for cutting part of the screen combination from the screen
14 combination.

1 29. (previously presented) The machine of claim 28 wherein the means for
2 moving the screen combination is dual opposed driven rollers between which the
3 screen combination passes.

1 30. (previously presented) The machine of claim 29 further comprising
2 the dual opposed driven rollers comprising a first roller and a
3 second roller,

4 the first roller drive by a first drive motor,
5 clutch apparatus interposed between the first roller and the first
6 drive motor,

7 control apparatus for controlling rate of rotation of both the first
8 roller and the second roller and for controlling the clutch apparatus,

9 sensor apparatus for sensing rate of rotation of the second roller,
10 the sensor apparatus in communication with the control apparatus,

11 the control apparatus also for maintaining rate of rotation of the
12 first roller and of the second roller substantially the same.

1 31. (previously presented) The machine of claim 30 further comprising
2 control apparatus for controlling the machine.

1 32. (previously presented) The machine of claim 29 wherein each of the dual
2 opposed driven rollers has its own dedicated drive motor.

1 33. (previously presented) The machine of claim 29 wherein at least one of the
2 dual opposed driven rollers is substantially covered with material for inhibiting glue
3 from sticking to said roller.